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Please replace the second full paragraph as follows:

### **BRIEF DESCRIPTION OF THE DRAWINGS**

Fig. 1a        a first embodiment of a mixing plate

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Please replace the first full paragraph as follows:

### **DETAILED DESCRIPTION OF THE INVENTION**

Fig. 1a shows a first embodiment of a mixing plate 20. This mixing plate 20 has two feeding chambers 33a and 33b for the reactants A,B. Both feeding chambers 33a,b branch into four primary channels 35a,b. Microstructures 31 defining the mixing zones 32 between the main channels 35 for the reactants A and B are located on both sides along the main channels 35a,b. The main channels 35a,b intermesh in a comb-like manner. The feeding chambers 33a,b together with the mixing zones 32 each form a mixer cell 30a and 30b.

### **IN THE CLAIMS:**

Please substitute the following claims for the pending claim of the same number.

1. (Amended) A micromixer for mixing at least two reactants having penetrations for the supply of the reactants and/or the discharge of the product comprising: at least one mixing plate with

microstructures that define mixer cells, each of said mixer cells having a feeding chamber which adjoins at least one group of digital channels which intermesh in a comb-like manner with the digital channels of a group from the adjoining feeding chambers to form a mixing zone; and a discharge plate arranged on the mixing plate, said discharge plate having an outlet port above each mixing zone, said outlet port extending perpendicularly to the digital channels, wherein each mixer cell has at least two mixing zones.

2. (Amended) A micromixer as claimed in Claim 1, wherein the majority of the feeding chambers have parallel main channels that intermesh in a comb-like manner, with digital channels branching off of said main channels.
3. (Amended) A micromixer as claimed in Claim 1, wherein the majority of the feeding chambers are surrounded on all sides in the plane of the plate by mixing zones.
4. (Amended) A micromixer as claimed in Claim 1, wherein the feeding chambers are arranged according to the reactants in rows and/or columns in an alternating pattern.
5. (Amended) A micromixer as claimed in Claim 3, wherein the feeding chambers have a rectangular outline.
6. (Amended) A micromixer as claimed in Claim 3, wherein the feeding chambers have a triangular outline.
7. (Amended) A micromixer as claimed in Claim 3, wherein that side of the mixing plate facing away from the mixer cells is structured and has two storage chambers for the reactants;

has parallel channels which lead away from the storage chambers and run beneath the feeding chambers, whereby the channels for one reactant intermesh in a comb-like manner with the channels for the other reactant;

and has penetrations leading from the channels to the feeding chambers.

8. (Amended) A micromixer as claimed in Claim 3, wherein a first plate and below that a second plate are arranged below the mixing plate to form a storage chamber for the two reactants, and said storage chambers are connected via supply lines for the respective reactant to the corresponding feeding chambers, whereby the supply lines for the reactant in the lower storage chamber are hollow bodies which carry the reactant through the upper storage chamber.
9. (Amended) A micromixer as claimed in Claim 3, wherein the micromixer includes an integrated heat exchanger.
10. (Amended) A micromixer as claimed in Claim 9, wherein hollow bodies containing a heating medium or coolant are arranged on the discharge plate between the ports.
11. (Amended) A micromixer as claimed in Claim 9, wherein a heating medium or coolant is passed through the discharge plate.
12. (Amended) A micromixer as claimed in Claim 8, wherein a third chamber for a heating medium or coolant is arranged between the mixing plate and the two storage chambers for reactants, and both reactants are passed in hollow bodies through the third chamber en route to the feeding chambers of the mixing plate.